REMARKS

A petition for a further one month extension of time has today been filed as a separate paper and a copy is attached hereto.

This response accompanies a request for Request for Continued Examination.

Claims 11-16 and 20-22 have been allowed.

Claims 17-19, rejected in the office action dated July 25, 2003, are amended and presented as new claims 23-25. The amendments made to the claims 17-19 are shown in the attached copy of claims 17-19 following these remarks.

Consideration of claims 23-25 is requested in view of the rejection dated July 15, 2003 of corresponding claims 17-19 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 5,841,926 (Takeuchi et al.). Claims 23-25 are deemed allowable for reciting a combination forming an optical attenuator in the form of a single mode optical fiber for receiving optical signals having wavelengths within a predetermined range of wavelengths wherein a dopant contained within a centermost portion of the core attenuates received optical signals with shorter wavelengths in the predetermined range more than longer wavelengths in the predetermined range of wavelengths. For example in applicants' Fig. 8, as described in the original specification for the third embodiment on page 19 (substitute specification page 18), the attenuation in the center part of the core decreases for increasing wavelengths within the

wavelength range from 1530 nm to 1560 nm when the center part of the core is doped with Samarium. This enables applicants to select different attenuations for different signals with this range of frequencies.

In contrast Takeuchi et al. provide an essentially even attenuation throughout the range of signals being transmitted. Takeuchi et al., in Fig. 4, show a flat attenuation for the range of 1.28 μm to 1.32 μm and, in Fig. 10, show a generally flat attenuation which increases slightly for the range of 1.53 μm to 1.57 μm; in neither case does Takeuchi et al. show a decreasing attenuation for increasing wavelengths within the range of wavelengths being transmitted as called for by claims 23-25.

In the rejection of July 25, 2003, the office action states that the statement in Takeuchi et al. at column 7, lines 56-57: "The cutoff wavelength was about 1.2 μm" meets applicants' claim limitation of "...attenuates the optical signal more when its wavelength is shorter..." However claims 23-25 now recite that the increasing attenuation for shorter wavelengths must be "within the predetermined range of wavelengths" being transmitted as optical signals. The cutoff wavelength of 1.2 μm is well outside the ranges of 1.28 μm to 1.32 μm and 1.53 μm to 1.57 μm employed in Takeuchi et al. for transmission of optical signals. Additionally according to the applicants, the term "cutoff wavelength" is commonly used to indicate the transition wavelength from single mode operation to multimode operation and thus does not necessarily indicate an attenuation of 100%.

Furthermore Takeuchi et al. employ cobalt as a dopant in the center core which as illustrated in applicants' Fig. 9 and as noted in applicants' specification has increasing attenuation (in contrast to the claimed decreasing attenuation) for longer wavelengths within the range of 1530 nm to 1560 nm.

Accordingly claims 23-25 are clearly novel and patentable over Takeuchi et al.

The application, as now amended, is believed to be in condition for allowance and such favorable action is requested.

Respectfully submitted,

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